40. (Amended) A transgenic mouse all of whose germ cells and somatic cells contain a DNA sequence comprising a promoter of the β2-subunit of neuronal nicotinic acetylcholine receptor having the sequence from about nucleotide -1125 to about nucleotide +38 as set forth in Figure 1 (SEQ ID NO. 22) operatively linked to a nucleotide sequence encoding a heterologous polypeptide, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein and is expressed in neurons of the transgenic mouse, and wherein the DNA sequence was introduced into the transgenic mouse or an ancestor of the transgenic mouse at an embryonic stage.

41. (Amended) A transgenic mouse generated by crossing a first mouse with a second mouse, wherein all of the germ cells and somatic cells of the first mouse contain a DNA sequence comprising a promoter of the β2-subunit of neuronal nicotinic acetylcholine receptor having the sequence from about nucleotide -1125 to about nucleotide +38 as set forth in Figure 1 (SEQ ID NO. 22) operatively linked to a nucleotide sequence encoding a heterologous polypeptide, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein and is expressed in neurons of the first mouse, wherein the DNA was introduced into the first mouse or an ancestor of the first mouse at an embryonic stage, and wherein the neurons of the transgenic mouse express the heterologous polypeptide.

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43. (Twice Amended) A transgenic mouse as claimed in claim 41, wherein the endogenous DNA of the second mouse is not identical to the endogenous DNA of the first mouse.

44. (Twice Amended) A transgenic mouse as claimed in claim 41, wherein the second mouse is a transgenic mouse containing a transgene different from said DNA sequence of the first mouse.

46. (Amended) A process for producing a neuronal host cell that expresses a heterologous protein, comprising transferring to the neuronal host cell a DNA sequence comprising a promoter of the β2-subunit of neuronal nicotinic acetylcholine receptor having the sequence from about nucleotide -1125 to about nucleotide +38 as set forth in Figure 1 (SEQ ID NO. 22) operatively linked to a nucleotide sequence encoding the heterologous polypeptide under suitable conditions to cause expression of the heterologous polypeptide by the neuronal host cell, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein or is encoded by a reporter gene.

47. (Amended) The process according to claim 46, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein.

54. (Amended) The process according to claim 53, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein.

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55. (Amended) A process for producing a neuronal host cell that expresses a heterologous protein, comprising:

introducing a DNA sequence into a mouse at an embryonic stage, wherein the DNA sequence comprises a promoter of the β2-subunit of neuronal nicotinic acetylcholine receptor having the sequence from about nucleotide -1125 to about nucleotide +38 as set forth in Figure 1 (SEQ ID NO. 22) operatively linked to a nucleotide sequence encoding the heterologous polypeptide, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein or is encoded by a reporter gene; and

generating a transgenic mouse all of whose germ cells and somatic cells contain the DNA sequence and wherein the neurons of the transgenic mouse express the heterologous polypeptide.

58. (Amended) The process according to claim 55, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein.

Please add the following claims.

--59. (New) A transgenic mouse generated by crossing a first mouse with a second mouse, wherein the first mouse comprises germ cells, which contain a DNA sequence comprising a promoter of the β2-subunit of neuronal nicotinic acetylcholine receptor having the sequence from about nucleotide -1125 to about nucleotide +38 as

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set forth in Figure 1 (SEQ ID NO. 22) operatively linked to a nucleotide sequence encoding a heterologous polypeptide, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein or is encoded by a reporter gene, and wherein the heterologous polypeptide is expressed in neurons of the first mouse, wherein the DNA was introduced into the first mouse at an embryonic stage.

60. (New) A transgenic mouse according to claim 59, wherein the nucleotide sequence encoding the heterologous protein is a reporter gene.

61. (New) A transgenic mouse according to claim 60, wherein the reporter gene encodes luciferase or β-galactosidase.

62. (New) A transgenic mouse according to claim 59, wherein the heterologous polypeptide is an oncogenic, tumorigenic, or immortalizing protein.--

REMARKS

Applicants respectfully request reconsideration of this application in view of the following remarks. Claims 40-47 and 51-62 are pending in this application. Claims 48-50 have been canceled without prejudice or disclaimer. Claims 59-62 have been added. Support for claims 59-62 can be found in the specification, including, for example, at page 35.

Claims 40, 41, 43, 44, 46, 47, 54, 55, and 58 have been amended. This amendment does not introduce any new matter into the specification.

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